

AMENDMENT TO THE SPECIFICATION

Please replace in the specification, the paragraph on page 40, line 13 - line 20 with the following paragraph:

Referring back to **Figure 8D**, section **881** consists of the aggressor net **811d** surrounded by victim nets **831d** and **821d**. **Figure 9A** illustrates a detailed view of how the interconnect wires of section **881** may appear. Capacitance is a physical attribute that is determined by the size, shape, and proximity of conductive materials. The capacitance problem of **Figure 9A** can be defined by the length of the section **L**, the width of each wire section (**W₀**, **W₁**, and **W₂**), the distance between the victim wire **931** and the aggressor wire **911** (**S₁**), and the distance between the victim wires **921** and the aggressor wire ~~**911**~~ (~~**S₃**~~) **911** (**S₂**).

Please replace in the specification, the paragraph on page 41, line 4 - line 13 with the following paragraph:

Figure 9B illustrates a two-dimensional cross section of the capacitance problem of **Figure 9A**. A two-dimensional field solver can be used to solve the two-dimensional capacitance problem of **Figure 9B**. The output of the capacitance extraction is the capacitance between the aggressor wire and the first victim wire **C₀₁**, the capacitance between the aggressor wire and the ~~first~~ second victim wire **C₀₂**, and the capacitance between the aggressor wire and the ground plane **C₀**. Thus, the capacitance problem for sections having the two-dimensional profile of **Figures 9A** and **9B** can be expressed in terms of five input variables (**W₀**, **W₁**, **W₂**, **S₁**, and **S₂**) and three output values (**C₀₁**, **C₀₂**, and **C₀**). The different output values are often added together and expressed as a single capacitance value **C**.

Please replace in the specification, the paragraph on page 42, line 1 - line 7 with the following paragraph:

The vertical distance between the different metal layers affects the capacitance calculation. However, the vertical distance between the different metal layers in a particular semiconductor process is a fixed constant value. Thus, in a model is built specifically for a particular semiconductor process and metal layer, the vertical distance may be ignored since it does not vary. Therefore, the capacitance problem for sections having the profile illustrated in **Figure 10** has nine input variables (W_0 , W_1 , W_2 , W_3 , W_4 , S_1 , S_2 , S_3 , and S_4) and five output values, not shown in **Figure 10** (C_{01} , C_{02} , C_{03} , C_{04} , and C_0), where C_{on} is the capacitance between the aggressor wire and the nth victim wire.

Please replace in the specification, the paragraph on page 42, line 9 - line 16 with the following paragraph:

Figure 11 illustrates yet an even more complex capacitance extraction problem. The capacitance extraction for the profile of **Figure 11** must take into account the capacitance effects from two interconnect wires on the same metal layer (**1120**, or **1130**), two interconnect wires on a higher metal layer (**1160**, or **1170**), and two interconnect wires on a lower metal layer (**1180**, or **1190**). The capacitance problem for sections having the profile of **Figure 11** has thirteen input variables (W_0 , W_1 , W_2 , W_3 , W_4 , W_5 , W_6 , S_1 , S_2 , S_3 , S_4 , S_5 , and S_6) and seven output values, not shown in **Figure 11** (C_{01} , C_{02} , C_{03} , C_{04} , C_{05} , C_{06} , and C_0), where C_{on} is the capacitance between the aggressor wire and the nth victim wire.